

Asthma/ENT guidelines for kids

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This evaluation trial of education intervention in general practice setting is administered at the Department of General Practice- The University of Melbourne in collaboration with Royal Children's Hospital, Royal Australian College of General Practitioners, The Northern Division of General Practice and the North West Melbourne Division of General Practice. It is funded by the International GlaxoSK Respiratory Clinical Research Award and the Northern Division of General Practice.

(For further info and to get permission to use the GP and patients questionnaire please contact the CI & manager n.sulaiman@unimelb.edu.au or the director)

Objectives

The main objective of this study is to examine the effects of asthma Best Practice Guidelines (BPG), administered alone or with an educational package, on the management of asthma in children in the general practice setting.

Hypotheses

1. Provision of locally adapted BPGs will improve the management of asthma by GPs who receive them compared to those who do not
2. Provision of asthma BPGs within an education package will improve the management of asthma by GPs who receive them compared to those who receive BPGs alone (ie no education package)
3. Provision of locally adapted BPGs and an asthma education package will improve the management of asthma by GPs more than provision of guidelines alone

Significance of project

In Australia, asthma is a major health problem with about 2,000,000 Australians being affected. More specifically, asthma affects approximately one in four primary-school age children, one in seven teenagers and one in ten adults. Asthma is one of the ten most common reasons for seeing a general practitioner (GP). GPs play a pivotal role in early detection and management of asthma, as about 90% of the Australian population consult their GPs at least once a year.

Guidelines for the management of asthma have been developed by, among others, the National Asthma Campaign, Asthma Victoria and the Royal Children's Hospital. However, guidelines have not been developed to meet local requirements in the Northern Metropolitan Region of Melbourne.

Similarly ear, nose and throat (ENT) problems are among the most common reasons for paediatric consultations in general practice. Adverse effects include hearing loss, delays in learning to talk and risk of developmental impairment. Management of three ENT problems, acute otitis media, serous otitis media and tonsillitis have been the subject of several studies, however, there does not appear to be any widely accepted and used clinical guidelines for these three conditions based on current available evidence.

The potential for improvement in asthma care is substantial, given the number of deaths in Australia (424 in 1999, of which many were preventable) and the declining level of written asthma action plans in South Australia, from 42% in 1995 to 33% in 1999 (Ruffin et al, 1999). In Victoria, Robertson et al (1998) has shown that only 44% of patients admitted to hospital had previously been given a written asthma

management plan and of these, only 9% used it to guide treatment for the current episode. There was a significant delay in initiating treatment after the onset of symptoms and only 20% used oral prednisolone before attending the emergency department. The risk of death due to asthma can be reduced by 70% by the use of written asthma action plans and by 90% with use of oral steroids.(Abramson 2001)
The expected outcome of the proposed study is that local GPs will have increased knowledge about asthma and ENT and this will result in improved patient care, including reduced variation in patient care, better patient knowledge of asthma and increased adherence to an asthma management plan.

Administrative structure

The Project Team

Dr Nabil Sulaiman (Chief investigator and manager, Department of General Practice)

A/Prof Teng Liaw (Director, Department of General Practice)

Dr Claire Harris (GP Liaison, Research and Education Unit, RCH)

Mrs Jill Byron (RA- Department of General Practice)

Mrs Tanja Maksimovic (RA- Department of General Practice).

The Steering Group

The group provides the overall planning and direction to the project team. The group meets every two months. Members are the projects partners:

4. The University of Melbourne Department of General Practice (DGP): Dr Nabil Sulaiman, Chief investigator and manager; A/Prof Teng Liaw, Principle investigator and director; Dr Claire Harris; and Dr Kay Jones
5. Northern Division of General Practice (NDGP): Mr Phillip Bain (CEO),
6. North West Melbourne Division of General Practice (NWMDGP): Ms Carolyn Searle (CEO)
7. Royal Australian College of General Practitioners (RACGP): Professor Brian McAvoy and Dr Chris Hogan
8. Royal Children's Hospital (RCH) GP Liaison, Research and Education Unit): Dr Claire Harris (Unit Head) and Dr Ray Gornall (Asthma Liaison Officer)

The Advisory Group

The role of the group is to contribute local and regional level input and expertise, and to advise on the adaptation of the guidelines, education package, methodology of the trial and implementation of the project. The group will meet six times. Members are experts in asthma research, evaluation and development:

9. A/Prof. Colin F Robertson, Physician, Dept of Thoracic Medicine, RCH
10. A/Prof. Susan Sawyer, Physician, Dept of Thoracic Medicine, RCH

11. Dr Chris Hogan, National Asthma Campaign representative
12. A/Prof Michael Abramson, Deputy Head, Department of Epidemiology & Preventive Medicine, Monash Medical School, Alfred Hospital
13. Dr. Shyamali Dharmage, Senior Lecturer, School of Population Health
14. A/Prof Don Campbell, Head, Clinical Epidemiology and Health Service Evaluation Unit, Royal Melbourne Hospital

Ethics and confidentiality

This study will be conducted with approval from the University of Melbourne Human Research Ethics Committee, a properly constituted committee according to NHMRC guidelines.

In obtaining informed consent from participating GPs, the study investigator will provide the potential participant with information about the meaning of informed consent, that the informed consent may be affected by the special doctor-patient relationship. Guardians of children with asthma may be invited to participate, but that any participation is voluntary. They must understand that treatment of their children will not be affected if they decide not to participate. They should also understand that this project is a research project and the clinic is collaborating with the University of Melbourne in the project to benefit the health of their children.

In obtaining informed consent from the patients of the GPs, the guardian of children with asthma should be given a plain language statement and informed consent form to sign if they agree to participate. They must understand that they can withdraw from the study at any time.

All data generated by the study will remain strictly confidential. No report shall contain any information that will allow an individual participant in the study to be identified.

Current research in the region

The project team is unaware of any research into management of asthma or ENT problems in children currently taking place in the Northern Metropolitan Region of Melbourne. From a wider perspective, current evidence suggests that the severity of asthma in childhood is increasing (NAC 1992). It has been found to be the most common reason for hospital admission, a major cause of school absenteeism in children, and is among the ten most common reasons for GP consultations. The national cost of asthma medication is around \$170 million, making it the third highest drug-group cost (NAC 1999). Given the significance of asthma in the Australian population, it has been identified as the sixth National Health Priority. Fortunately, most people with asthma can lead normal lives, including participating in competitive sport if receiving optimum treatment. Self-management, together with effective drug therapy can reduce morbidity and mortality (Asthma Management Handbook 1998).

In respect of ENT, anecdotal evidence from staff at the Royal Children's Hospital suggests that outpatient clinics are overwhelmed with referrals from GPs resulting in waiting times of longer than six months. It is estimated that only a fraction of patients who present at the clinics, need to be seen by an ENT surgeon, and that many of the conditions would resolve spontaneously with time, or could be managed by medical treatment alone. Thus, it appears that inappropriate referrals from GPs are a significant problem.

Patients in the region

The Northern Metropolitan Region was chosen because asthma is one of the priorities identified by three of the four divisions of general practice servicing the area (Northern, North West Melbourne and Central Highlands Divisions of General Practice) (personal communication). The population is multicultural with a substantial proportion (25-48%) from non-English speaking backgrounds. In the most recent survey of this region conducted by the Department of Human Services (DHS) of young people at school (year 7, 9 and 11) 59.8% of students' mothers and 54.6% of students' fathers were born in Australia. The region has the highest rate of mothers (25.9%) and fathers (21.7%) who did not complete high school (metropolitan

average is 19.5% of mothers and 16.7% for fathers), and 28% of mothers and 7.6% of fathers are not in paid employment.

The Victorian Burden of Disease study released in January 2001 reveals that asthma is a major cause of morbidity in this area. In Disability Adjusted Life Years (DALYs) rankings for Hume, one of the Local Government areas covered by this study, asthma is the third highest in females and the fourth in males. Asthma is the second highest cause of Years Lived with Disability (YLD) in this area and in the whole of the NMR it is ranked third and fourth highest for males and females respectively.

GPs in the region

The great majority of GPs in the Northern Metropolitan Region are members of NDGP or NWMDGP. There are 800 GPs in the region, situated in 313 practices. NDGP has 350 GPs in 124 practices and NWMDGP has 450 GPs in 189 practices.

Study design

Overall design

The study is a randomised-controlled trial where general practices are randomly allocated to one of three groups (see attached figure):

15. Group A will receive asthma guidelines and an education package.
16. Group B will receive asthma guidelines only.
17. Group C will receive ENT guidelines and an education package. This group will not receive any asthma materials and act as a control group for Groups A and B.

Each group will include 10 general practices, each of whom will recruit 17 children, aged 2-14 years, giving a total of 170 children per group.

Outcomes will be measured by questionnaires administered to GPs and their patients. Outcome measures are listed in their own section later.

A data monitoring committee will periodically review data prior to completion of study.

Results from the study are expected to be available by March 2002.

Participants

The study will randomise and follow 30 general practices and 510 children deemed eligible on the basis of the criteria listed below.

GP inclusion criteria

18. Commitment by practice to participate,
19. Agree to randomisation,
20. Willing to recruit children with asthma from their practices,
21. Willing to allow access to their medical records,
22. Willing to complete three questionnaires: at baseline and after 3 and 6 months
23. Willing to attend a 6-hour education session about asthma or ENT problems.

GP exclusion criteria

Participation in the Guideline Development Group

Patient inclusion criteria

24. Children with GP-diagnosed asthma who have visited the practice during the preceding three months.
25. Willing to allow access to their medical records,
26. Willing to complete three questionnaires: at baseline and after 3 and 6 months
27. Able to understand English

Patient exclusion criteria

Patients with complex chronic condition(s) such as cerebral palsy, cystic fibrosis, heart disease, cancers etc.

Non-participant information

Permission will be sought from parents/guardians who declined to participate in the study for the investigators to record non-identified information on the age of the child, language spoken at home and severity of asthma measured by the doctor.

Progress to date

Up to end of Jan 2002, thirty-two practices were recruited to the study and 63 GPs have completed the baseline asthma/ ENT questionnaire and signed about 1,000 invitations to the guardians of children with asthma. The invitation package include information sheet (Plain Language Statement), consent form, age-specific asthma questionnaire and reply paid envelop.

Asthma/ ENT trial Protocol

